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Takotsubo cardiomyopathy mortality: Racial differences, gender association and trends from 2003 -2012

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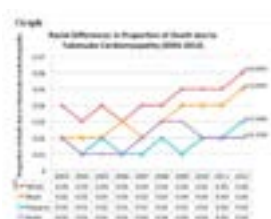
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Statement of the Problem: Takotsubo cardiomyopathy (TCM) is a syndrome characterized by left ventricular apical ballooning with similar presentation as myocardial infarction. Though TCM is known for female predominance and favorable prognosis, small studies have described mortality up to 3.2%, with males having worse prognosis. The purpose of this study is to determine the association of race and gender with TCM mortality. The study also aims to recognize possible health disparities among racial groups using longitudinal mortality trends.

Methodology: US mortality records from the National Center for Health Statistics (NCHS) from 2003-2012 were examined for adult deaths at ages >25 years (n=23,290,842) due to TCM, stratified by race (Asian, Black, Hispanic, White) and gender. Direct-standardized age-adjusted mortality rate (AMR) and proportional mortality ratio (PMR) were determined among the racial groups compared to Whites, and mortality due to TCM was trended longitudinally by year and race. Chi-square test was used to determine association between gender and TCM mortality in racial groups.

Results: Takotsubo cardiomyopathy accounted for 0.018-0.043% of all-cause mortality from 2003-2012. Whites had the highest TCM mortality risk from both AMR and PMR (AMR: 2.5 times higher than Asian and 1.9 times higher than Hispanics; PMR: double the risk in Asians and Hispanics, and 27% more than Blacks). Subgroup analysis revealed a significantly increasing TCM mortality trend in Blacks (p<0.0001) and Whites (p<0.0001), but not among Hispanics (p=0.1866) and Asians (p=0.3599). No significant association between TCM mortality and gender was observed among all racial groups (p=0.0634).

Conclusions & Significance: TCM is a rare cause of death, with increased mortality in Whites compared to Asians, Blacks, and Hispanics. The lack of proportionate increase in mortality trend in the Asians and Hispanics could represent underdiagnosis in these sub-populations. Gender did not play a role in TCM outcomes, in contrast to prior studies.



Biography

Joanne Gomez is a third year Internal Medicine Resident at Rush University Medical Center in Chicago, IL, USA. Her research interest is in the prevention and treatment of cardiovascular diseases that remain the no. 1 cause of mortality in both developed and developing nations. Her research focus is on cardiovascular disease risk assessment, women's health, and identification of high-risk populations. She is a strong Advocate in increasing awareness on the prevalence of cardiac disease among women and racial minorities. One of her publications is a study on the genotype distribution of single-nucleotide polymorphisms associated with hyperlipidemia, proprotein-convertase subtilisin-kexin type 9 (PCSK9) and low density lipoprotein receptor (LDLR), and association with statins in the high-risk Filipino American women; a work that has been presented in various national conferences in the United States.

Notes:

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